



MATERIAL SAFETY DATA SHEET

(Essentially similar to U.S. Department of Labor Form OSHA-20)

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F-4716



I. PRODUCT IDENTIFICATION

PRODUCT 75% Argon-25% Helium Mixture (High Pressure Gas Mixture)

CHEMICAL NAME ---

SYNONYMS ---

CHEMICAL FAMILY ---

FORMULA Mixture of Argon + Helium

MOLECULAR WEIGHT ---

TRADE NAME

He-25

II. HAZARDOUS INGREDIENTS

For mixtures of this product request the respective component Material Safety Data Sheets

MATERIAL	Wt (%)	ACGIH 1979 TLV-TWA (Units)	MATERIAL	Wt(%)	ACGIH TLV-TWA (Units)
Argon	75	Simple Asphyxiant			
Helium	25	Simple Asphyxiant			

III. PHYSICAL DATA

BOILING POINT, 760 mm. Hg	---	FREEZING POINT	---
SPECIFIC GRAVITY (H ₂ O = 1)	Gas	VAPOR PRESSURE AT 20°C.	Gas
VAPOR DENSITY (air = 1)	1.07	SOLUBILITY IN WATER, % by wt.	Negligible
PER CENT VOLATILES BY VOLUME	100	EVAPORATION RATE (Butyl Acetate = 1)	N/A
APPEARANCE AND ODOR	Colorless; odorless.		

IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (test method)	N/A	AUTOIGNITION TEMPERATURE	N/A
FLAMMABLE LIMITS IN AIR, % by volume	LOWER	N/A	UPPER
EXTINGUISHING MEDIA	N/A		

Gas mixture cannot catch fire. Use media appropriate for surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES

Evacuate all personnel from danger area. Immediately deluge containers with water spray from maximum distance until cool, then move containers away from fire area if without risk.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Gas mixture cannot catch fire. Container may rupture due to heat of fire. No part of a container should be subjected to a temperature higher than 52°C (approximately 125°F). Containers are provided with pressure relief devices that are designed to vent the contents when they are exposed to elevated temperature.

EMERGENCY PHONE NUMBER

IN CASE OF EMERGENCIES involving this material, further information is available at all times at this telephone number:

304: 744-3487

For routine information contact your local Linde Supplier.

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UNION CARBIDE CORPORATION ■ LINDE DIVISION ■ 270 PARK AVENUE, NEW YORK, N.Y. 10017

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V. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE See Section II.

EFFECTS OF OVEREXPOSURE AND EMERGENCY AND FIRST AID PROCEDURES

Asphyxiation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician. Keep warm and at rest.

VI. REACTIVITY DATA

STABILITY		CONDITIONS TO AVOID
Unstable	Stable	
	X	

See Section IX.

INCOMPATIBILITY (materials to avoid) None known

HAZARDOUS DECOMPOSITION PRODUCTS

None known

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will not Occur	
	X	

None known

VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED Evacuate all personnel from danger area. Use self-contained breathing apparatus where needed. Shut off leak if without risk. Ventilate area of leak or move leaking container to well ventilated area. Test area, especially confined areas, for sufficient oxygen content prior to permitting re-entry of personnel.

WASTE DISPOSAL METHOD

Slowly release into atmosphere outdoors.

VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type)

Self-contained breathing apparatus where needed.

VENTILATION	LOCAL EXHAUST Preferred	SPECIAL ---
	MECHANICAL (general) Adequate	OTHER ---
PROTECTIVE GLOVES	Preferred for cylinder handling.	EYE PROTECTION
OTHER PROTECTIVE EQUIPMENT	Metatarsal shoes for cylinder handling.	Safety glasses

IX. SPECIAL PRECAUTIONS

CAUTION: High pressure gas mixture. Use piping and equipment adequately designed to withstand pressures to be encountered. Gas can cause rapid suffocation due to oxygen deficiency. Store and use with adequate ventilation. Close valve when not in use and when empty.
Do not strike arc on cylinder. Do not ground cylinder.

OTHER HANDLING AND STORAGE CONDITIONS

When used for electric welding or cutting refer to Linde's free form F52-529 "Precautions and Safe Practices for Electric Welding and Cutting"